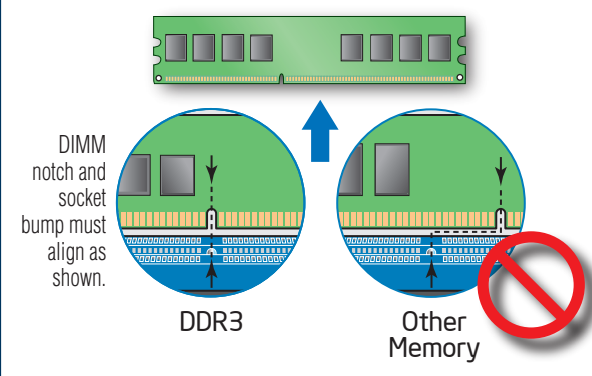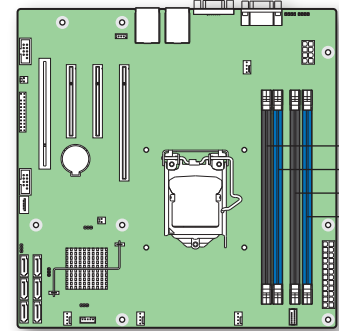## 7. Install DIMM Memory Modules

DDR3 DIMM Memory Identification:

⚠️ CAUTION: Observe normal ESD (ElectroStatic Discharge) procedures to avoid possible damage to system components.

⚠️ This server board supports up to 4 DDR3 1066/1333 ECC UDIMM.

DIMM notch and socket bump must align as shown.

DDR3   Other Memory

Memory Configurations and Population Order:

DIMM A2
DIMM A1
DIMM B2
DIMM B1

Memory Type: Minimum of one 1 GB, DDR3 1066/1333 MHz ECC UDIMM.

Note: For additional memory configurations, see the Intel® Server Board S1200BTS Technical Product Specification at:
http://www.intel.com/support/motherboards/server.

Memory sizing and configuration is supported only for qualified DIMMs approved by Intel®. For a list of supported memory, see the tested memory list at
http://serverconfigurator.intel.com/default.aspx

To Install DIMMs:

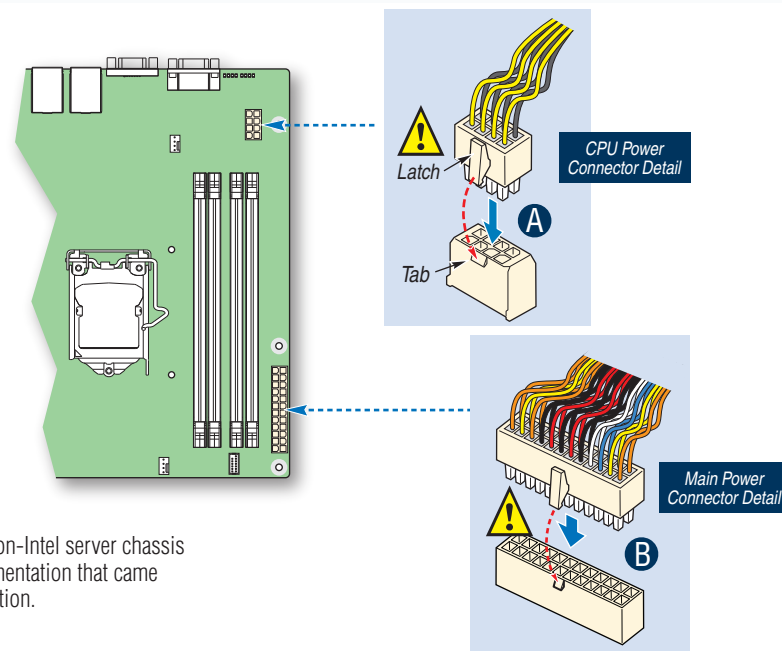⚠️ CAUTION: Avoid touching contacts when handling or installing DIMMs.

A. Open both DIMM socket levers.
B. Note location of alignment notch.
C. Insert DIMM making sure the connector edge of the DIMM aligns correctly with the slot.
D. Push down firmly on the DIMM until it snaps into place and both levers close.
E. IMPORTANT! Visually check that each latch is fully closed and correctly engaged with each DIMM edge slot.

8. Make Server Board Power Connections

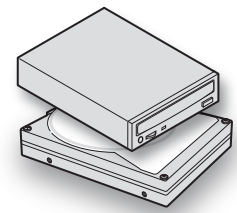A. Attach the CPU power connector.
B. Attach the main power connector.

⚠️ CAUTION: Note the location of the latch on each power cable connector and align it with the matching tab on each server board socket.

Latch — Tab — CPU Power Connector Detail

Main Power Connector Detail

IMPORTANT NOTE: If you are using a non-Intel server chassis with an ATX power supply, see the documentation that came with your chassis for installation information.
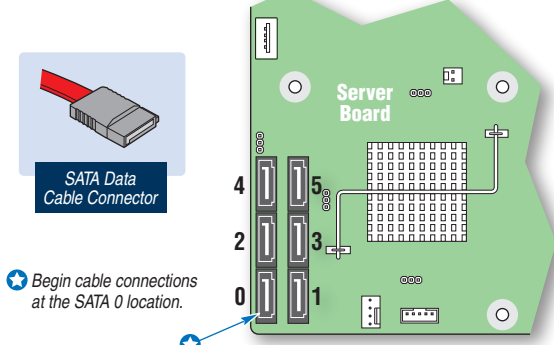
intel®

9. Install Optical Drive and Hard Drive(s)

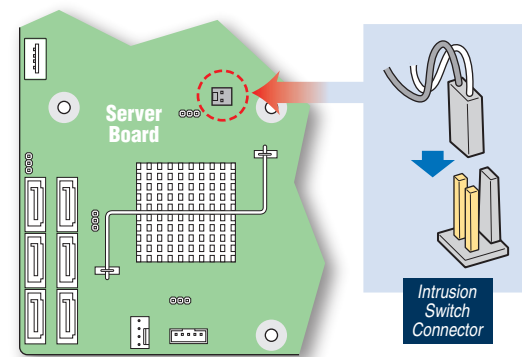See the documentation that came with your server chassis for drive installation.

10. Connect Hard Drives/Optical Drive to Server Board

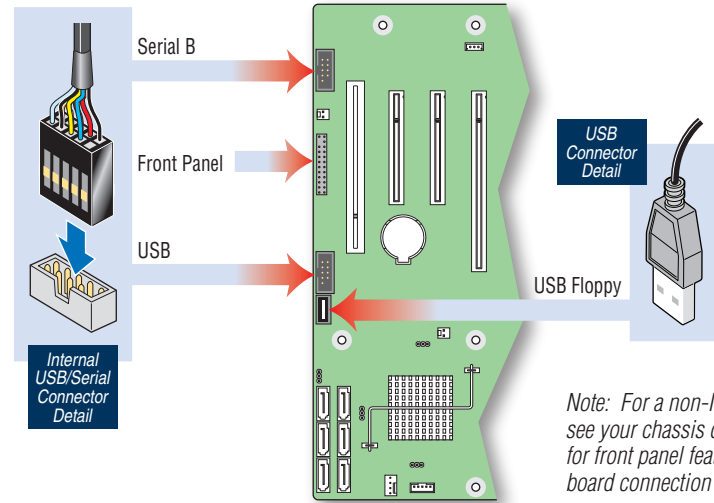Connect SATA Data Cables to server board here.

SATA Data Cable Connector

Server Board

❋ Begin cable connections at the SATA 0 location.

11. Attach Intrusion Switch Cable

Server Board
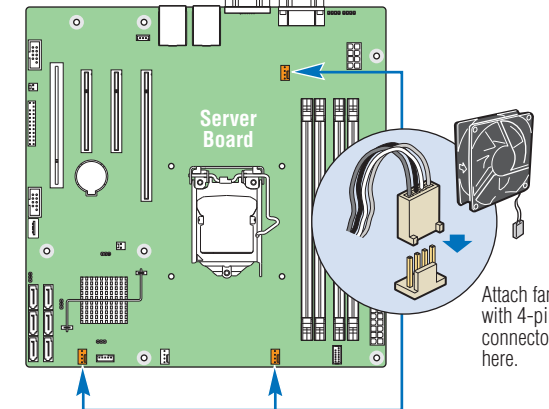
Intrusion Switch Connector

Note: For a non-Intel chassis, see your chassis documentation for intrusion switch requirements.

12. Attach Front Panel, Serial, and USB Connections

Serial B
Front Panel
USB
Internal USB/Serial Connector Detail

USB Connector Detail
USB Floppy

Note: For a non-Intel chassis, see your chassis documentation for front panel features and server board connection requirements.

IMPORTANT NOTE:
Return to your Intel® Server Chassis Quick Start User's Guide, or your non-Intel chassis documentation to finish installation and configuration of your Intel® Server Board S1200BTS.

Return to this document to finish up, including software, BIOS, drivers and operating system installation.

13. Chassis Fan Connections
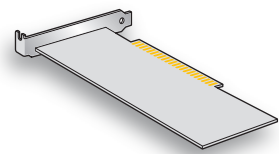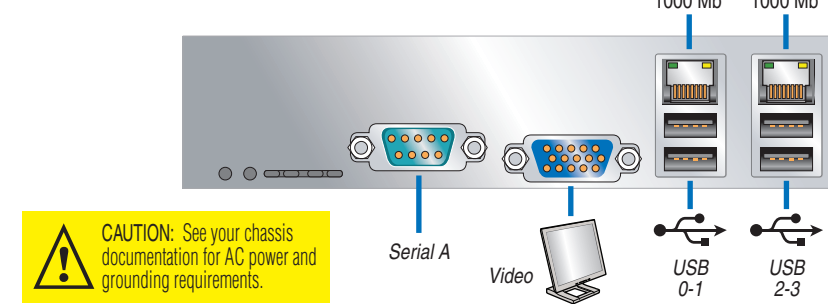
Server Board

Attach fans with 4-pin connectors here.

For a non-Intel server chassis, see the "Making Connections ... Quick Reference" section below, and the documentation accompanying your chassis for specific chassis fan connection requirements.

14. Install Add-in Card[s]

See the documentation that came with your server chassis for add-in card installation.

For the Intel® Server Chassis P4000 series, see the Quick Start User's Guide accompanying the chassis.

15. Finishing Up

Before installing your operating system, you must finish your chassis installation, make I/O connections and plug in AC power.

See your chassis documentation for AC power and grounding requirements.

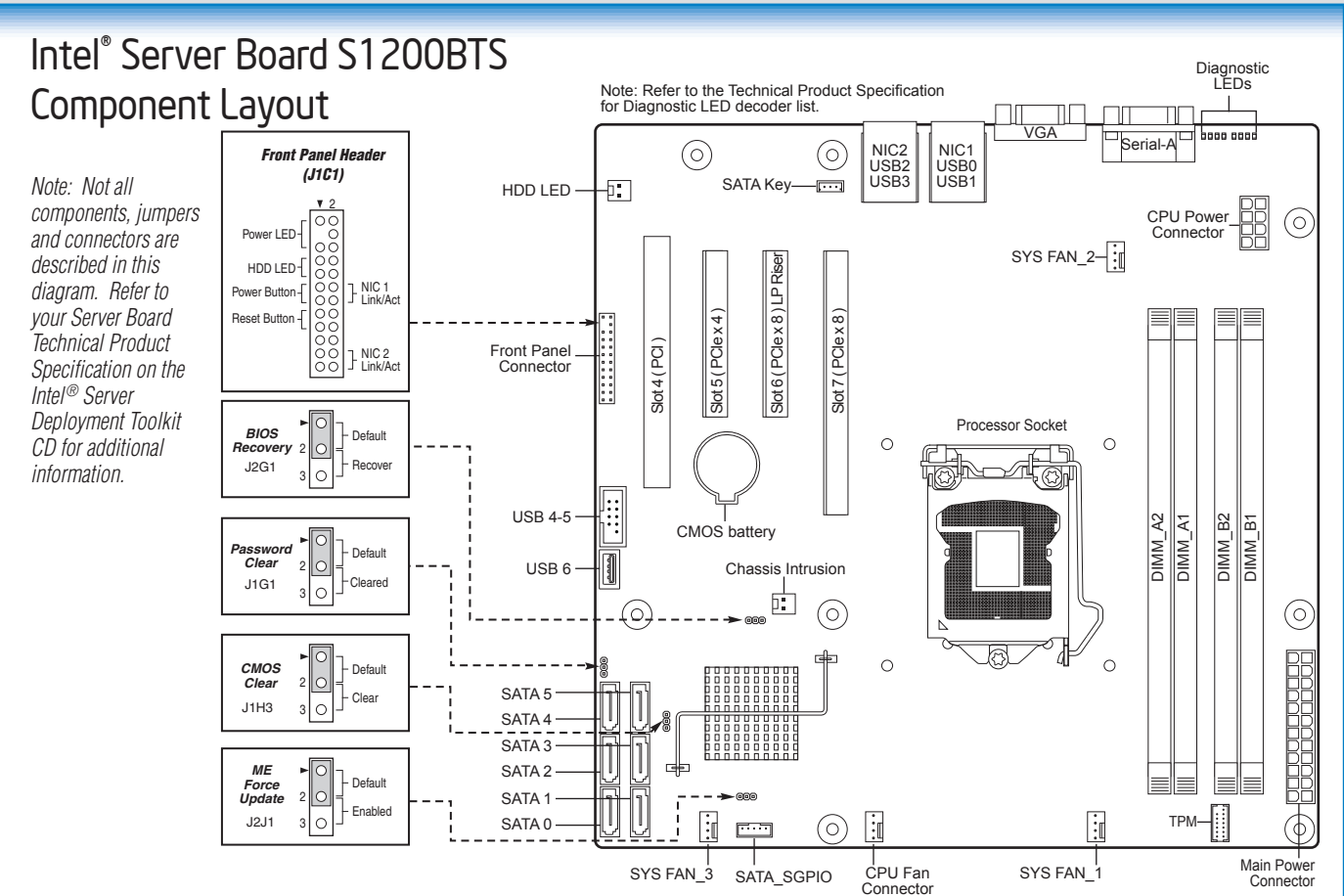⚠️ CAUTION: See your chassis documentation for AC power and grounding requirements.

Network
NIC1 10/100/1000 Mb
NIC2 10/100/1000 Mb
Serial A
Video
USB 0-1
USB 2-3

16. Software ▪ BIOS, Drivers, and Operating System Installation

A. Confirm BIOS Version: Look on the Server/System Management screen in the BIOS Setup Utility to determine the installed BIOS version. Compare this to the versions at:
http://www.intel.com/support/motherboards/server.
If new versions are available, update the BIOS on your server. See the Techinical Product Specification on the Intel® Server Deployment Toolkit CD for update instructions.

B. Configure your RAID Controller: Use the instructions provided with the RAID controller.

C. Install your Operating System: Use the instructions provided with the RAID controller and with the operating system.

D. Install Operating System Drivers: With the operating system running, insert the Intel® Server Deployment Toolkit CD. If using a Microsoft Windows* operating system, the Intel® Deployment Assistant will autorun and allow you to select the appropriate drivers to install. On other operating systems, browse the CD folders to locate and install the driver files.

Common Problems and Solutions

For a list of hardware components that have been tested with this system, see:
http://www.intel.com/support/motherboards/server

The system does not boot or show video at power-on.

• Check that the +12V CPU power connector is plugged in. Without this cable, the processors will not have any power.

• Only Intel® Xeon® Processor E3-1200 series or Intel® Core™ Processor i3-2100 series with 95 W and less Thermal Design Power (TDP) are supported on this server board. Previous generation Intel® Xeon® processors are not supported.

Beep code 1-5-2-1 in a system means you do not have Intel® Xeon® Processor E3-1200 series or Intel® Core™ Processor i3-2100 series installed.

• The system generates the memory error beep code and POST diagnostic LED message (0XE0–0XEF) that indicates memory errors in early POST .

• Remember, all DIMMs must be:
  • DDR3 1066/1333 MHz UDIMM.
  • From the same manufacturer.
  • Installed beginning with DIMM A1.

Intel® Server Board S1200BTS Component Layout

Note: Not all components, jumpers and connectors are described in this diagram. Refer to your Server Board Technical Product Specification on the Intel® Server Deployment Toolkit CD for additional information.

Front Panel Header (J1C1)
Power LED
HDD LED
Power Button
Reset Button
NIC 1 Link/Act
NIC 2 Link/Act

BIOS Recovery J2G1 — 1 Default / 3 Recover
Password Clear J1G1 — 1 Default / 3 Cleared
CMOS Clear J1H3 — 1 Default / 3 Clear
ME Force Update J2J1 — 1 Default / 3 Enabled

HDD LED
SATA Key
Front Panel Connector
USB 4-5
USB 6
CMOS battery
Chassis Intrusion

NIC2 USB2 USB3
NIC1 USB0 USB1
VGA
Serial-A
Diagnostic LEDs

Slot 4 (PCI)
Slot 5 (PCIe x 4)
Slot 6 (PCIe x 8) LP Riser
Slot 7 (PCIe x 8)

CPU Power Connector
SYS FAN_2
Processor Socket
DIMM_A2 DIMM_A1 DIMM_B2 DIMM_B1

SATA 5
SATA 4
SATA 3
SATA 2
SATA 1
SATA 0
TPM
SYS FAN_3   SATA_SGPIO   CPU Fan Connector   SYS FAN_1   Main Power Connector

Note: Refer to the Technical Product Specification for Diagnostic LED decoder list.

Accessories and Order Codes

ATX I/O Shield	AXXTIO
Intel® Integrated RAID Module	AXXRMS2AF040
Intel® Integrated RAID Module	AXXRMS2LL040
Intel® Trusted Platform Module	AXXTPME3
SATA Slim-Line DVD	AXXSATADVDROM

Additional Reference documents available at:
http://www.intel.com/support/motherboards/server

A complete list of accessories and spares can be found at:
http://www.intel.com/support/motherboards/server
(search for the document titled "Spares and Configuration Guide".)

Available Documents

Document/Tool	Content
Technical Product Specification	In-depth technical information
Monthly Specification Update	Technical information and issues update
Spares, Parts List, and Configuration Guide	Supported accessories and spares list
Sever Configurator Tool	Tested peripherals and operating systems list / Tested memory list / Supported processors list
Software and Drivers	Up-to-date firmware, driver and utility information

Additional Reference documents available at: http://www.intel.com/support/motherboards/server

Making Connections to the Server Board ... *Quick Reference*

Required Connections	Intel® Server Chassis P4000 series	
A.	+12V CPU Power Connector	■
B.	Main Power Connector	■
C.	Front Panel Header	■

■ = Make this connection

CPU/System Fan Connections	Intel® Server Chassis P4000 series	
D.	System Fan 1 Header	
E.	System Fan 2 Header	■
F.	System Fan 3 Header	
G.	CPU Fan Header	■

■ = Make this connection

Optional Connections	Intel® Server Chassis P4000 series	
H.	USB 4-6	■
I.	SATA Connectors	■
J.	SATA SGPIO	■
K.	TPM	
L.	SATA Key	
M.	Chassis Intrusion Header	■

■ = Make this connection

Note: For a non-Intel Chassis, see your chassis documentation for server board connection information.

Note: Not all optional connections are shown in this diagram. Refer to your Server Board Service Guide, and your server chassis documentation for additional connection information.

IMPORTANT Note: Cables should be tied for better airflow. Use cable-ties as necessary.

Sys Fan 2
SATA Key
Front Panel
12V CPU Power
USB
Intrusion
Serial ATA
Main Power
SATA SGPIO
TPM
Sys Fan 3   CPU Fan   Sys Fan 1